

Commanders' Risk Mitigation Dashboard (CRMD)

Quick Start Guide

Section 1: Introduction

CRMD is an operational tool for unit-level prediction of destructive behaviors in the Navy. Identifying these risk factors early arms Commanders with the tools and knowledge to implement measures that may help avoid destructive behaviors in their commands. CRMD is not intended to be used punitively. Data is updated quarterly.

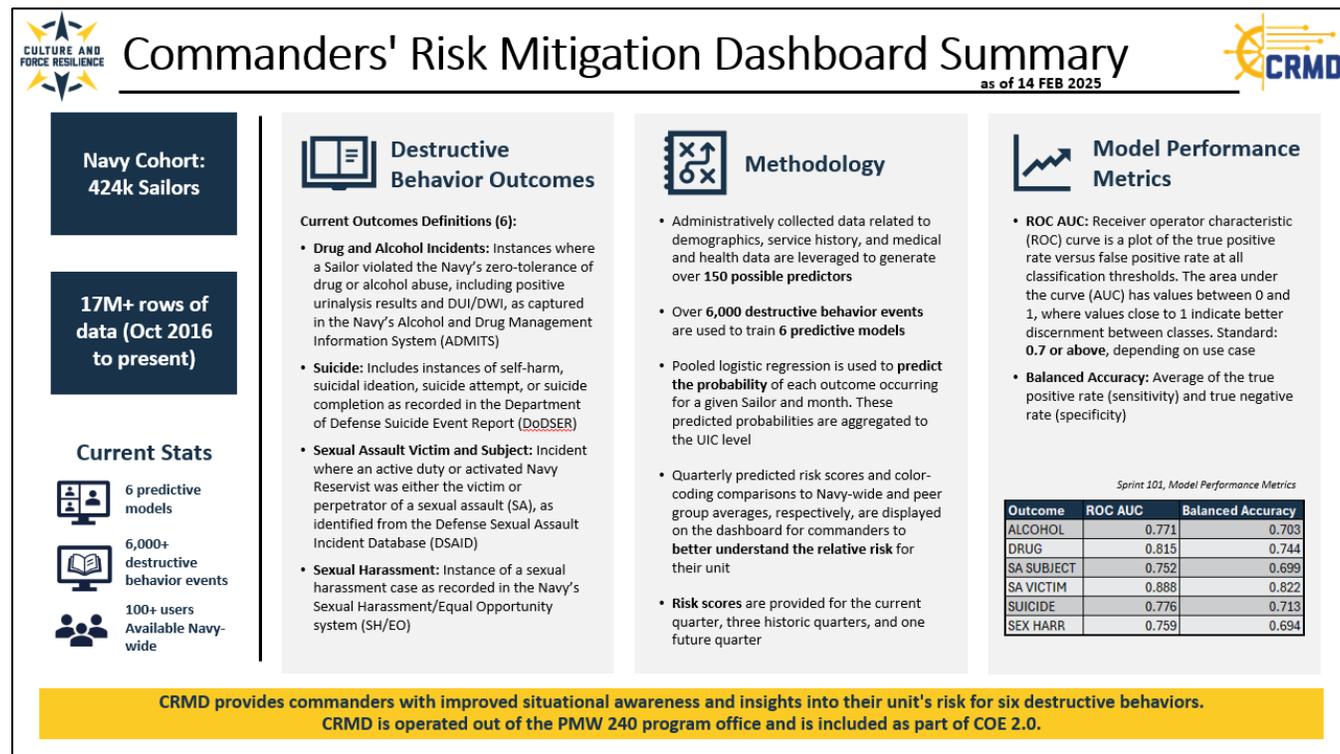


Figure 1: CRMD Summary Slide

Section 2: User Access / Help Desk

Personnel identified as members of an active command triad will be granted access automatically based on their assigned role.

Commands may designate additional appointees to have access to their CRMD. For individual units, this endorsement must come from the CO or XO. For Echelon II-IV, Chief of Staff-level endorsement (or equivalent) is required. Endorsement can be a brief email from the appropriate authority approving access to **CRMD@navy.mil** or **ADEHelpDesk@us.navy.mil**. An email template is available for download under the quick links section of the CRMD home page.

Once access is configured, the dashboard can be reached via this URL:

<https://crmd.portalprod.ade.cloud.navy.mil>.

If you need any help accessing CRMD, please email the ADE Help Desk at **ADEHelpDesk@us.navy.mil**.

Section 3: CRMD Overview

Data Sources

The following data sources are currently used in the risk models for the CRMD:

| | |
|-------------------------------------|---|
| MyNavy HR - AQD_DATA | Pharmacy Detail Transaction Service |
| MyNavy HR - ASVAB_DATA | Standard Inpatient Data Record |
| MyNavy HR - EDUCATION_DATA | Tricare Encounter Data Institutional |
| MyNavy HR - EVAL_DATA | Tricare Encounter Data Non-Institutional |
| MyNavy HR - LIMDU_DATA | Medical Data Repository Clinical Data Repository Vitals (DHA) |
| MyNavy HR - MRRS_DEPLOYMENT_FLAG | Comprehensive Ambulatory/Professional Encounter Record |
| MyNavy HR - OFFICER_DESIGNATOR_DATA | Theater Medical Data Store |
| MyNavy HR - PERSON_DATA | Navy Alcohol Drug Misuse Prevention Control System |
| MyNavy HR - PFA_DATA | Defense Casualty Incident Personnel System |
| MyNavy HR - RANK_DATA | Defense Sexual Assault Incident Database Case |
| MyNavy HR - SERVICE_DATA | Defense Sexual Assault Incident Database Subject Data |
| MyNavy HR - UIC_INFO | Defense Sexual Assault Incident Database Victim Data |
| MyNavy HR - WAIVER_DATA | Sexual Harassment Equal Opportunity |
| MyNavy HR - DEPLOYMENT_DATA_MRRS | Medical Health System Genesis Encounter |
| Periodic Health Assessment | Medical Health System Genesis Admissions |
| Periodic Health Reassessment | Health of the Force |
| DoD Suicide Event Report | |

Table 1: Current CRMD Data Sources

Data Displays

CRMD displays an overall risk score and six different category risk scores for an individual unit on the main screen with the ability to drill down into the different categories to access information on the contributing factors to those risk categories. In addition, Navy peer group and Navy overall risk scores are also provided for comparison purposes. CRMD's risk scores measure the risk of a destructive behavior/event in the next quarter based on individuals' current contributing factors.

Contributing Factors to Risk

Along with the overall and category risk scores, there is also a quarter-by-quarter display of demographic, service-related, or health-related factors that most contribute to the predicted probability of destructive behaviors/events occurring within the individual unit. These factors are relevant to the individual unit, relative to the unit's peer group, and specific to the risk category selected.

The view on the Risk Category screens can be changed to display the top 5 risk factors/factor constructs that contribute to increases or decreases in risk of experiencing a destructive behavior/event for each calendar quarter by clicking on the quarter tile about each quarters' score. The factors/factor constructs are displayed on a bar graph along with their Shapley values below the quarterly scores.

Data Dictionary

The CRMD Data Dictionary screen consists of four tabs each providing a different type of information related to the data used to generate risk scores and populate the dashboard. Please note that the Data Dictionary screen is

a living page and will be updated as new data is added to the dashboard and machine learning models. The information provided by each tab includes:

- **Data Constructs** – The compilations of individual features used in model training combined for dashboard display to improve interpretability
- **Individual Features** – Standalone data elements used for model training
- **Features Controlled For** – Features controlled for in the models but do not appear in dashboard display
- **Data Sources** – List of data sources utilized to train the models along with the date range of the data source and the data refresh periodicity

Additional Details

For additional information and detail on the displays, risk score calculations, contributing factors, peer group definitions, and color backdrops please refer to the complete CRMD User Guide.

Section 4: CRMD Navigation

Home Screen:

Provides a brief overview of CRMD, the Helpdesk email address, and a dropdown menu to select your unit for viewing.

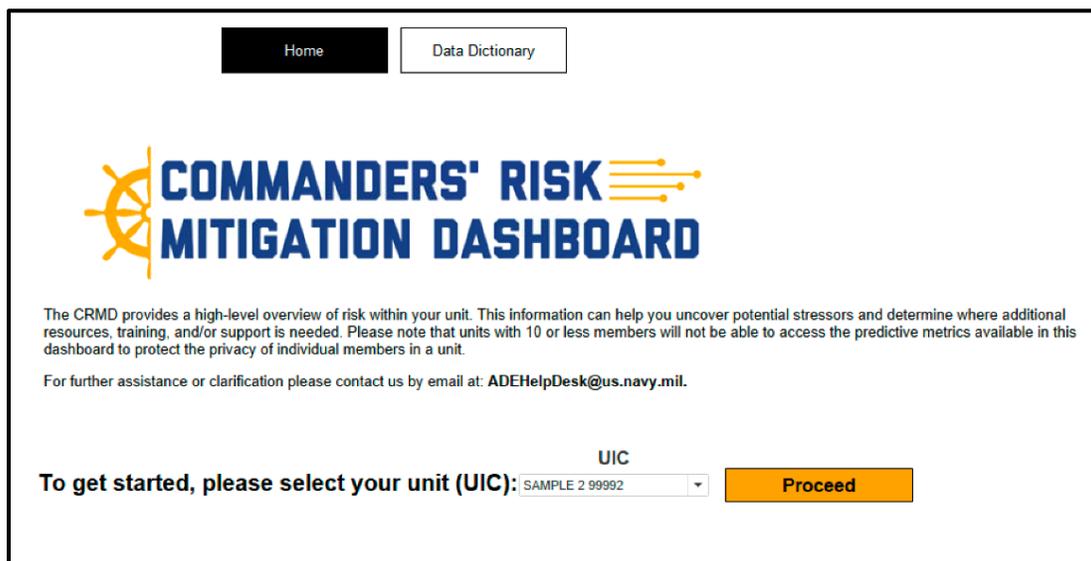


Figure 2: CRMD Home Screen

Main Screen:

Displays all risk scores for the unit, the Navy peer group, and Navy-wide average, as well as a unit complement breakdown, and drilldown capability to the contributing factors for each of the risk categories.

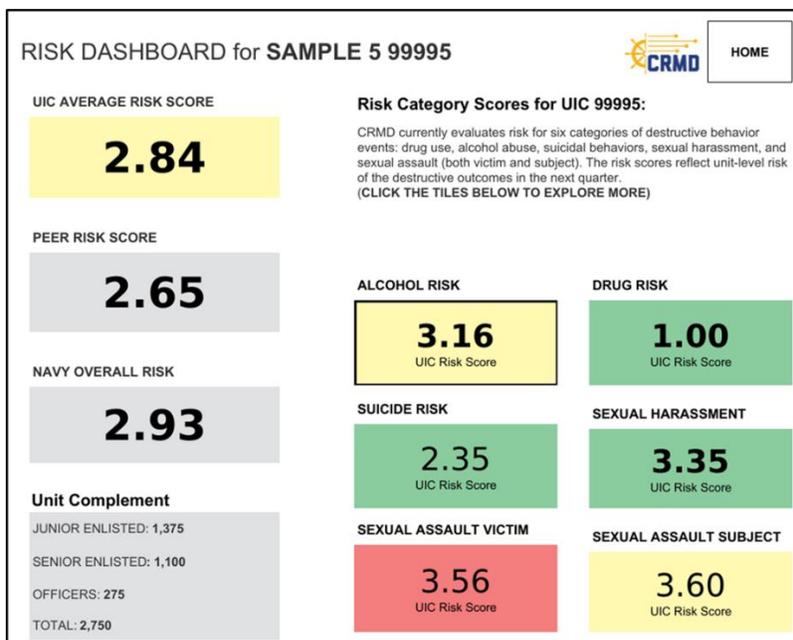


Figure 3: CRMD Main Screen

Risk Category Drilldown View:

Each risk category has a unique drilldown view that displays a unit-level Risk Score, the Navy Peer Group Risk Score, the Navy Average Risk Score, and Contributing Factors lists which is accessed by clicking on the risk category score tile on the Main Screen.

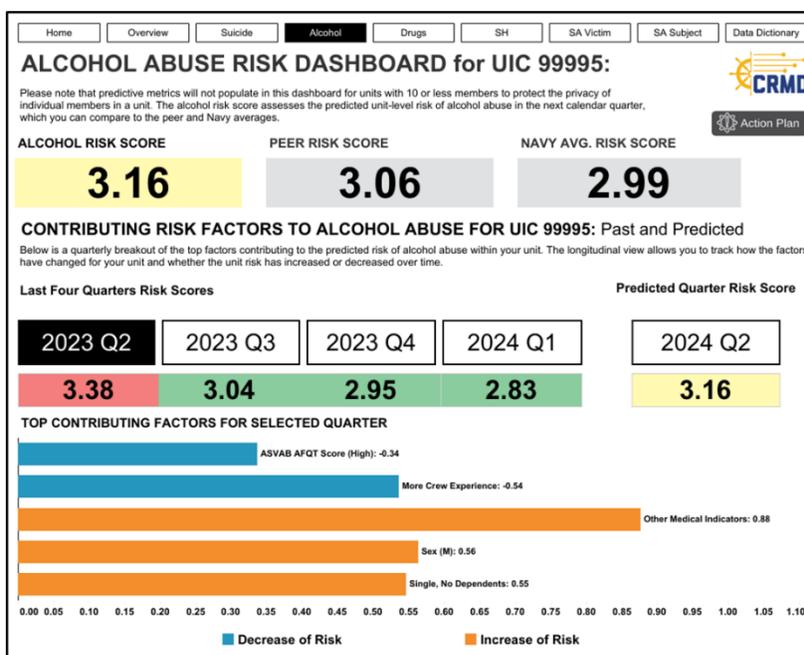
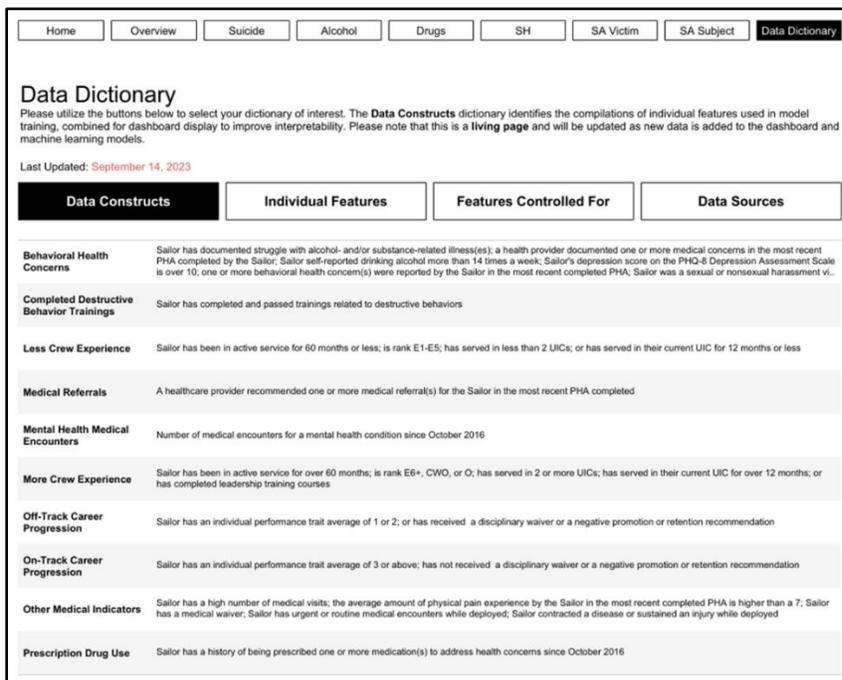


Figure 4: CRMD Risk Category Screen

Data Dictionary Screen:

Consists of **four tabs**, each explaining the data used to generate risk scores and populate the dashboard.

1) Data Constructs Tab:

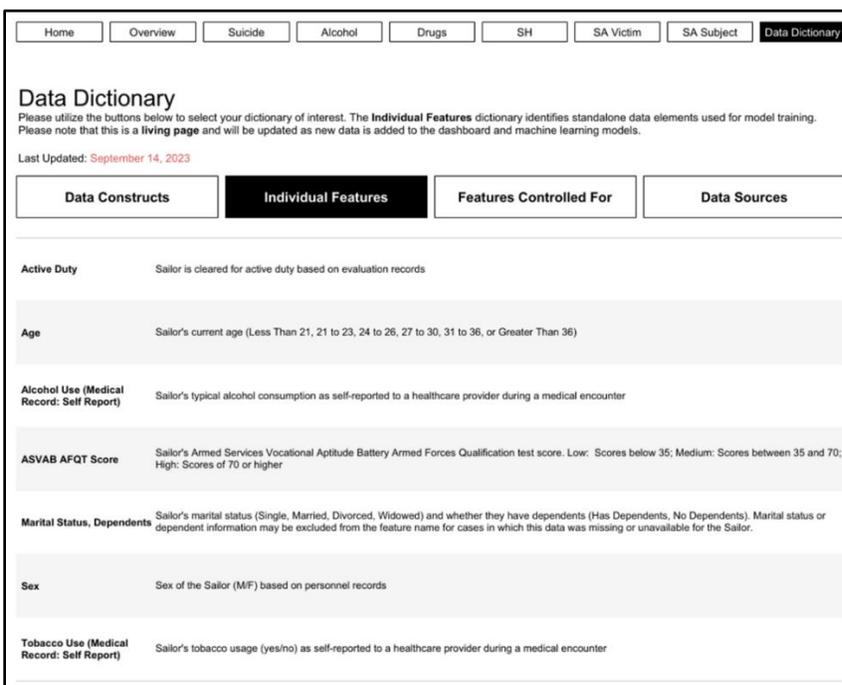


The screenshot shows the 'Data Dictionary' page with the 'Data Constructs' tab selected. The page includes a navigation bar with buttons for Home, Overview, Suicide, Alcohol, Drugs, SH, SA Victim, SA Subject, and Data Dictionary. Below the navigation bar, there is a title 'Data Dictionary' and a brief explanation of the dictionary's purpose. A 'Last Updated' date of September 14, 2023, is displayed. Below this, there are four tabs: Data Constructs (selected), Individual Features, Features Controlled For, and Data Sources. The main content area lists various data constructs with their descriptions:

| Construct Name | Description |
|---|---|
| Behavioral Health Concerns | Sailor has documented struggle with alcohol- and/or substance-related illness(es); a health provider documented one or more medical concerns in the most recent PHA completed by the Sailor; Sailor self-reported drinking alcohol more than 14 times a week; Sailor's depression score on the PHQ-8 Depression Assessment Scale is over 10; one or more behavioral health concern(s) were reported by the Sailor in the most recent completed PHA; Sailor was a sexual or nonsexual harassment vi... |
| Completed Destructive Behavior Trainings | Sailor has completed and passed trainings related to destructive behaviors |
| Less Crew Experience | Sailor has been in active service for 60 months or less; is rank E1-E5; has served in less than 2 UICs; or has served in their current UIC for 12 months or less |
| Medical Referrals | A healthcare provider recommended one or more medical referral(s) for the Sailor in the most recent PHA completed |
| Mental Health Medical Encounters | Number of medical encounters for a mental health condition since October 2016 |
| More Crew Experience | Sailor has been in active service for over 60 months; is rank E6+, CWO, or O; has served in 2 or more UICs; has served in their current UIC for over 12 months; or has completed leadership training courses |
| Off-Track Career Progression | Sailor has an individual performance trait average of 1 or 2; or has received a disciplinary waiver or a negative promotion or retention recommendation |
| On-Track Career Progression | Sailor has an individual performance trait average of 3 or above; has not received a disciplinary waiver or a negative promotion or retention recommendation |
| Other Medical Indicators | Sailor has a high number of medical visits; the average amount of physical pain experience by the Sailor in the most recent completed PHA is higher than a 7; Sailor has a medical waiver; Sailor has urgent or routine medical encounters while deployed; Sailor contracted a disease or sustained an injury while deployed |
| Prescription Drug Use | Sailor has a history of being prescribed one or more medication(s) to address health concerns since October 2016 |

Figure 5: CRMD Data Constructs Screen

2) Individual Features Tab:



The screenshot shows the 'Data Dictionary' page with the 'Individual Features' tab selected. The page includes a navigation bar with buttons for Home, Overview, Suicide, Alcohol, Drugs, SH, SA Victim, SA Subject, and Data Dictionary. Below the navigation bar, there is a title 'Data Dictionary' and a brief explanation of the dictionary's purpose. A 'Last Updated' date of September 14, 2023, is displayed. Below this, there are four tabs: Data Constructs, Individual Features (selected), Features Controlled For, and Data Sources. The main content area lists various individual features with their descriptions:

| Feature Name | Description |
|--|--|
| Active Duty | Sailor is cleared for active duty based on evaluation records |
| Age | Sailor's current age (Less Than 21, 21 to 23, 24 to 26, 27 to 30, 31 to 36, or Greater Than 36) |
| Alcohol Use (Medical Record: Self Report) | Sailor's typical alcohol consumption as self-reported to a healthcare provider during a medical encounter |
| ASVAB AFQT Score | Sailor's Armed Services Vocational Aptitude Battery Armed Forces Qualification test score. Low: Scores below 35; Medium: Scores between 35 and 70; High: Scores of 70 or higher |
| Marital Status, Dependents | Sailor's marital status (Single, Married, Divorced, Widowed) and whether they have dependents (Has Dependents, No Dependents). Marital status or dependent information may be excluded from the feature name for cases in which this data was missing or unavailable for the Sailor. |
| Sex | Sex of the Sailor (MF) based on personnel records |
| Tobacco Use (Medical Record: Self Report) | Sailor's tobacco usage (yes/no) as self-reported to a healthcare provider during a medical encounter |

Figure 6: CRMD Individual Features Screen

3) Features Controlled For Tab:

Home
Overview
Suicide
Alcohol
Drugs
SH
SA Victim
SA Subject
Data Dictionary

Data Dictionary

Please utilize the buttons below to select your dictionary of interest. The **Features Controlled For** dictionary identifies features that were controlled for in the models but do not appear in dashboard display. Please note that this is a **living page** and will be updated as new data is added to the dashboard and machine learning models.

Last Updated: September 14, 2023

Data Constructs

Individual Features

Features Controlled For

Data Sources

| | |
|--|---|
| Currently in Involuntary Extension | Sailor is currently in involuntary extension of service |
| Months Since First/Last Alcohol Medical Encounter - N/A | Number of months past since the first or most recent alcohol-related medical encounter. An N/A value means there is no record of this behavior for the Sailor. Positive values are included in the Behavioral Health Concerns construct. |
| Months Since First/Last Substance Use Medical Encounter - N/A | Number of months past since the first or most recent drug related medical encounter. An N/A value means there is no record of this behavior for the Sailor. Positive values are included in the Behavioral Health Concerns construct. |
| Months Since Last Harassment Incident - N/A | Number of months elapsed since the last harassment (sexual or nonsexual) incident recorded in the Sailor's current UIC. An N/A value means there is no record of this behavior for the command. Positive values are included in the Behavioral Health Concerns construct. |
| Months Since Last Suicide-Related Incident - N/A | Number of months elapsed since the suicide-related incident recorded in the Sailor's current UIC. An N/A value means there is no record of this behavior for the command. Positive values are included in the Behavioral Health Concerns construct. |
| Months To EAOS | Number of months until end of active obligated service date (Less Than 7, 7 to 12, 13 to 24, 25 to 36, 37 to 48, 49 to 60, Greater Than 60) |
| Occupation Code | Sailor's Navy occupational career category |
| Recent Drug/Alcohol Incident Recorded (ADMITS) | Sailor was recently involved in at least one alcohol or drug abuse event as recorded in ADMITS |
| Recent Sexual Assault Recorded (DSAID, Subject) | Sailor was recently involved in at least one sexual assault perpetration event as recorded in DSAID |
| Recent Sexual Assault Recorded (DSAID, Victim) | Sailor was recently involved in at least one sexual assault victimization event as recorded in DSAID |
| Recent Sexual Harassment Incident Recorded (SHIED) | Sailor was recently involved in at least one sexual harassment event as recorded in SHIED |
| Recent Suicidal Behavior Recorded (DODSER) | Sailor was recently involved in at least one suicidal behavior event as recorded in DODSER |
| Shore/Afloat Command | Whether the UIC the Sailor is currently serving in is primarily a Shore or Afloat command based on assignment codes |
| Total Number of Medical Visits (Low/Medium) | Total number of medical encounters (e.g., visits, inpatient stays, battle injury, non-battle injury) a Sailor has had in the past year. The Low and Medium classes are not displayed in the dashboard; however, the High class is captured within the Other Medical Indicators construct. |
| Total UIC Harassment Incidents - N/A | Number of harassment (sexual or non-sexual) complaints on record for the Sailor's current UIC. An N/A value means there is no record of this behavior for the command. Positive values are included in the Behavioral Health Concerns construct. |
| Total UIC Suicide Related Incidents - N/A | Number of suicide-related incidents on record for the Sailor's current UIC. An N/A value means there is no record of this behavior for the command. Positive values are included in the Behavioral Health Concerns construct. |
| UIC Size | Number of sailors in UIC the Sailor is serving in |
| Weight (lbs), Height (inches) | Sailor's weight in pounds, height in inches based on their most recent vitals records |

Figure 7: CRMD Features Controlled For Screen

4) Data Sources Tab:

Home
Overview
Suicide
Alcohol
Drugs
SH
SA Victim
SA Subject
Data Dictionary

Data Dictionary

Please utilize the buttons below to select your dictionary of interest. The **Data Sources** dictionary identifies a list of data sources utilized to train the models. Please note that this is a **living page** and will be updated as new data is added to the dashboard and machine learning models.

Last Updated: September 14, 2023

Data Construct

Individual Features

Features Controlled For

Data Sources

| Data Construct | Individual Features | Features Controlled For | Data Sources |
|--|---------------------|-------------------------|--|
| (ADE) NAVYY_MEMBER_ASSIGNMENTS_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 29 |
| (ADE) NAVYY_MEMBER_ASVAB_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 20 |
| (ADE) NAVYY_MEMBER_DESIGNATOR_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 23 |
| (ADE) NAVYY_MEMBER_EVALS_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 21 |
| (ADE) NAVYY_MEMBER_INJURY_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 22 |
| (ADE) NAVYY_MEMBER_PERSON_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 24 |
| (ADE) NAVYY_MEMBER_RANK_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 25 |
| (ADE) NAVYY_MEMBER_SERVICE_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 26 |
| (ADE) NAVYY_MEMBER_WAIVERS_VIEW | | FY17-Current | Daily snapshots starting Jan 17 |
| (ADE) NAVYY_PERSON_TRAINING_VIEW | | CY11-Current | Monthly snapshots 2011-19; Daily snapshots starting Jan 28 |
| (External) COMPREHENSIVE AMBULATORY/PROFESSIONAL ENCOUNTER RECO. | | FY17-July 23 | Monthly |
| (External) DEFENSE SEXUAL ASSAULT INCIDENT DATABASE CASE | | FY17-August 23 | Monthly |
| (External) DEFENSE SEXUAL ASSAULT INCIDENT DATABASE SUBJECT DATA | | FY17-August 23 | Monthly |
| (External) DEFENSE SEXUAL ASSAULT INCIDENT DATABASE VICTIM | | FY17-August 23 | Monthly |
| (External) DEPT OF DEFENSE SUICIDE EVENT REPORT | | FY17-July 23 | Monthly |
| (External) MEDICAL DATA REPOSITORY CLINICAL DATA REPOSITORY VITALS (D. | | FY17-June 23 | Monthly |
| (External) MEDICAL HEALTH SYSTEM GENESIS ADMISSIONS | | FY17-July 23 | Monthly |
| (External) MEDICAL HEALTH SYSTEM GENESIS ENCOUNTER | | FY17-July 23 | Monthly |
| (External) NAVY ALCOHOL DRUG MISUSE PREVENTION CONTROL SYSTEM | | FY17-August 22 | As Required |
| (External) PERIODIC HEALTH ASSESSMENT | | FY17-July 23 | Monthly |
| (External) PHARMACY DETAIL TRANSACTION SERVICE | | FY17-July 23 | Monthly |
| (External) SEXUAL HARASSMENT EQUAL OPPORTUNITY | | FY17-July 23 | Monthly |
| (External) STANDARD INPATIENT DATA RECORD | | FY17-March 23 | Monthly |
| (External) THEATER MEDICAL DATA STORE | | FY17-June 23 | Monthly |
| (External) TRICARE ENCOUNTER DATA - NON INSTITUTIONAL | | FY17-June 23 | Monthly |
| (External) TRICARE ENCOUNTER DATA INSTITUTIONAL | | FY17-June 23 | Monthly |

Figure 8: CRMD Data Sources Screen